

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and in light of the following discussion is respectfully requested.

Claims 30-60 are pending, with Claims 31-42 and 53-56 being withdrawn from consideration. The present Response amends Claims 30, 31, 35 and 39-41 and newly submits Claims 59 and 60 without introducing any new matter.

The Office Action objected to the drawings and the specification for informalities. In addition, the Office Action rejected Claims 30, 43-49, 57 and 58 under 35 U.S.C. §102(b) as anticipated by Dailey (U.S. Patent No. 4,346,920); rejected Claims 30, 43, 48 and 50 under 35 U.S.C. §102(b) as anticipated by Saunders (U.S. Patent No. 4,549,754); and rejected Claims 51 and 52 under 35 U.S.C. §103(a) as unpatentable over Dailey.

With respect to the objections to the specification and drawings, it is submitted the above amendments to the specification overcome each of the objections set forth in the Office Action pertaining to the drawings and specification. Accordingly, it is respectfully requested that the objections to the drawings and the specification be withdrawn.

The rejection based on Dailey is traversed.

Independent Claim 30 recites a method that includes providing a male tubular element including a tapered male threading, and providing a female tubular element including a tapered female threading that cooperates with the male threading by makeup to produce a rigid mutual connection of the tubular elements with radial interference between radial load transfer zones of the threadings. These threadings each have a load flank extending substantially perpendicular to an axis of the threadings. The radial load transfer zones are at

a radial distance from envelopes of thread roots of the male and female threadings and form an angle of less than 40 degrees with the axis of the threadings.

Claim 30 recites at least three elements that are not disclosed in Dailey: (1) a tapered threaded connection, (2) threadings that each have a load flank extending substantially perpendicular to an axis of the threadings, and (3) radial load transfer zones that form an angle of less than 40 degrees with the axis of the threadings.

With respect to item (1) above, Dailey states at column 9, lines 63-66 that (emphasis in original) “it will be appreciated that the foregoing descriptions of thread 225 have been in terms of a *constant pitch* cylindrical thread, i.e., a thread defined both externally and internally in cylindrical surfaces.” Thus, Dailey describes a cylindrical thread connection, whereas Claim 30 recites a tapered thread connection.

With respect to item (2) above, Dailey describes threads 226 and 227 that each have load flanks that are at a 7 degree angle with respect to a line that runs perpendicular to an axis of the threadings 226 and 227.¹ Load flank that is at a 7 degree angle with respect to a line that is perpendicular to an axis of the threadings, is not a load flank that extends substantially perpendicular to an axis of the threadings.

With respect to item (3) above, Dailey fails to disclose a radial load transfer zone that forms an angle of less than 40 degrees with the axis of the threadings, as recited in Claim 30. At most, the load flanks of the threads 226 and 227 engage each other, as illustrated in Figure 3 of Dailey. However, as discussed above, these load flanks are not at an angle of less than 40 degrees with the axis of the threadings, but instead form an angle of 83 degrees with the

¹ See, for example, Dailey at column 9, lines 1-3; column 10, lines 19-24; and column 12, lines 64-68.

axis of the threadings (as the load threads form an angle of 7 degrees with respect to a line that is perpendicular to an axis of the threadings).

Accordingly, Dailey fails to disclose all of the features recited in Claim 30. As such, Dailey fails to anticipate Claim 30. It is submitted Claim 30, and the claims depending therefrom, are in condition for allowance.

The rejection based on Saunders is traversed.

Claim 30 recites at least two elements that are not disclosed in Saunders: (1) the threadings each have a load flank extending substantially perpendicular to an axis of the threadings, and (2) radial transfer zones that are at a radial distance from envelopes of thread roots of the male and female threadings and form an angle of less than 40 degrees with the axis of the threadings.

With respect to item (1) above, Figure 2 of Saunders illustrates load flanks that are at an angle of 60 degrees with respect to an axis of the threadings. A load flank at an angle of 60 degrees with respect to an axis of the threadings is not the same as a load flank that extends substantially perpendicular to an axis of the threadings.

With respect to item (2) above, Saunders makes no mention whatsoever of a radial load transfer zone that forms an angle of less than 40 degrees with the axis of the threadings. At most, Figure 5 of Saunders illustrates the load flanks 25 and 24, respectively of the pin 11 and box 12 in an engaged state. However, as noted above, these load flanks form an angle of 60 degrees with the axis of the respective threadings. Sixty degrees is greater than 40 degrees. Thus, Saunders fails to disclose a radial load transfer zone that forms an angle of less than 40 degrees with the axis of the threadings.

Accordingly, Saunders fails to disclose all the features recited in Claim 30. As such, Saunders fails to anticipate Claim 30. It is submitted Claim 30 and the claims depending therefrom are in condition for allowance.

New Claims 59 and 60 recite further features that are not disclosed or suggested by the cited references. In particular, new Claim 59 recites that the load flanks of the male and female threadings are in contact on at least two consecutive threads. Claim 60 recites a pipe string component that connects an offshore platform with a seabed that includes a threaded tubular connection for implementing the method according to Claim 30. By contrast, Dailey is directed to a drilling jar located in a drill string just above the drill collar which usually is positioned in the drill string closely above the rotary drill bit. The jar is operated to hammer the drill string up or down, as appropriate, and thus jar the drill string loose from its stuck condition. See, column 4, lines 15-26 of Dailey.

In a drilling jar, a connection is subjected to reversing bending loads which range from zero for a straight hole to relatively small value for a non-straight hole. On the contrary, impact loads of a large magnitude and the stresses generated in the connection as a result can be very high if the connection is conventionally defined. See Dailey at column 7, line 63 to column 8, line 17. On the contrary, new Claim 60 recites a pipe string and thus concerns a riser that is subjected to cyclical bending efforts but not to axial hammering. Thus, new Claims 59 and 60 are believed to be in condition for allowance.

With respect to withdrawn Claims 31-42 and 53-56, it is respectfully requested that these claims be rejoined and allowed in accordance with M.P.E.P. §821.04, as Claims 31-42 and 53-56 include the subject matter recited in Claim 30, which is believed to be allowable.

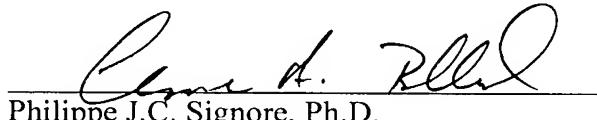
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For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for allowance. Therefore, a notice of allowance for Claims 30-60 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place the present application in even better form for allowance, the Examiner is encouraged to contact the Applicant's undersigned representative at the below-listed telephone number.

Respectfully submitted,

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